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ABSTRACT

This first in a series of bulletins on trends and projections presents past and projected enrollment trends in public elementary and secondary schools from 1965 to 2000. Enrollments in regular elementary and secondary schools from the Center for Education Statistics' Common Core of Data Survey were used to develop the projections. For the remainder of the 1980s and into the 1990s, total enrollment will increase in public elementary and secondary schools. The rising number of annual births since 1977 is expected to continue the growth in elementary enrollment in the late 1980s and spur growth in secondary enrollment in the 1990s. Technical notes, two figures, and two tables are included. (MLF)

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Public Elementary and Secondary Enrollments: Outlook to the Year 2000

About This Issue —

This is the first in a series of bulletins on trends and projections in education. This bulletin presents past and projected enrollment trends in public elementary and secondary schools from 1965 to 2000.

The Center for Education Statistics (CES) projects that for the remainder of the 1980's and into the 1990's, total enrollment will increase in public elementary and secondary schools. The primary reason for this increase is the rising number of annual births since 1977—the baby boom echo (figure 1). This surge of births will cause increases in the 5- to 17-year-old population over the next 15 years. These population increases (which began in 1985) are expected to continue the growth in elementary enrollment in the late 1980's and spur growth in secondary enrollment in the 1990's.

As with past national enrollment patterns, the Nation will not experience enrollment growth uniformly in all States and communities. Growth rates in some States will vary in the late 1980's and into the 1990's.

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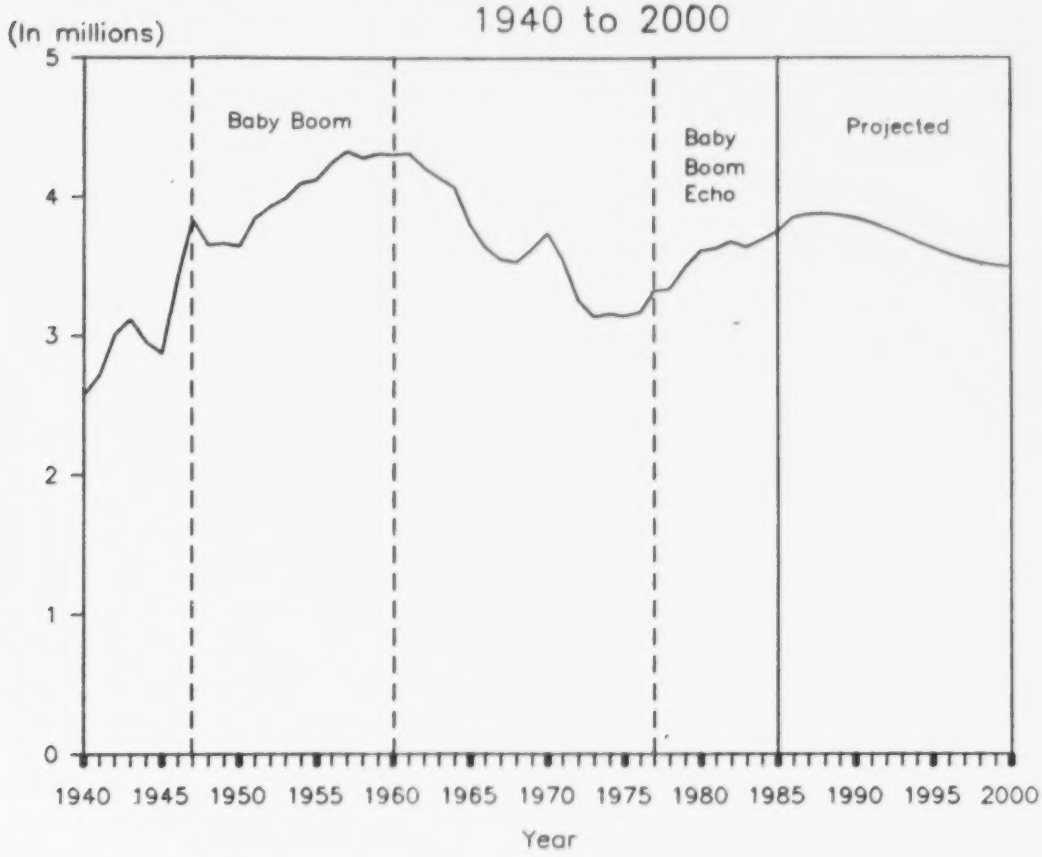
Figure 1.--Number of annual births: 1940 to 2000



Highlights

- Total enrollment in the Nation's public schools is expected to reach 45.3 million by the year 2000, approaching the peak of 46.1 million experienced in 1971. The peak year 1971 reflected enrollments of children born during the high-birth years of the 1950's and early 1960's (the baby boom).

- By the year 2000, public enrollment is projected to be about 5.6 million higher than the 1986 level of 39.7 million (table 1).

- Enrollment in public elementary schools (grades K-8) is expected to rise to 31.6 million by the year 2000 when it will be 4.2 million larger than the 1986 level of 27.4 million.

- Enrollment in public secondary schools (grades 9-12) is projected to reach 13.7 million by the year 2000, when it will be 1.3 million over the 1986 level.

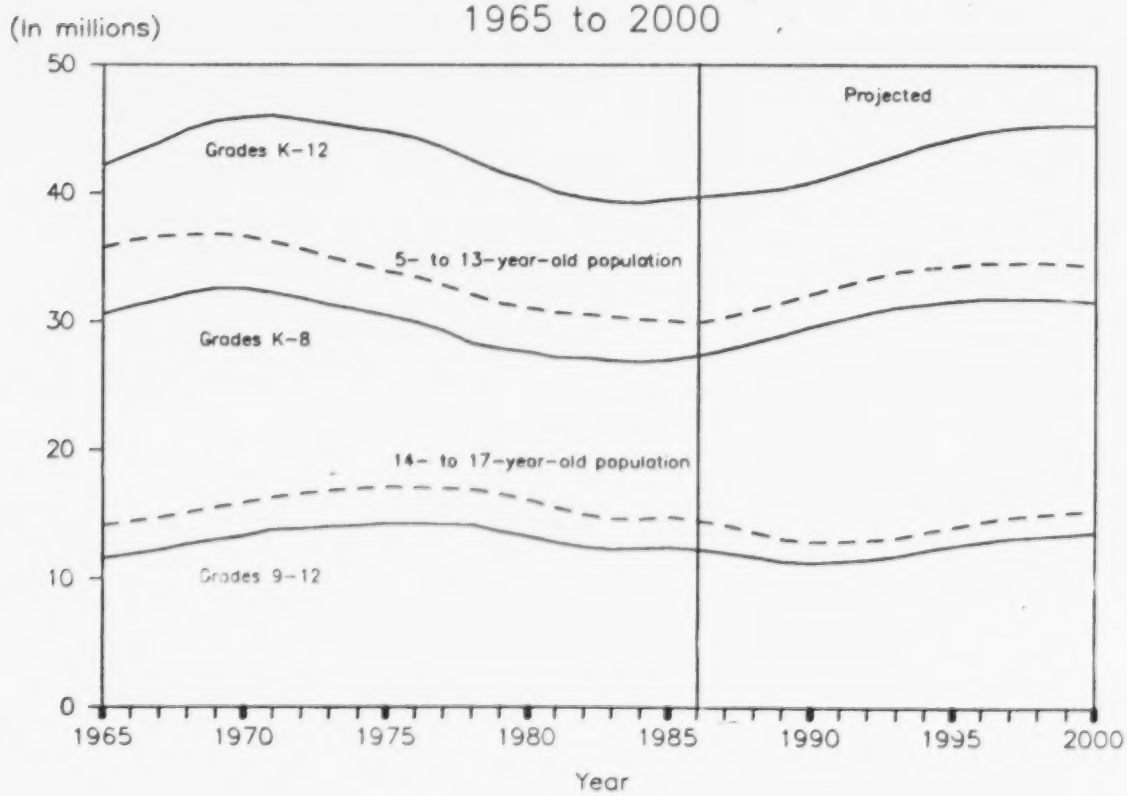
Public Enrollment in Kindergarten (K) through Grade 8

Public enrollment in grades K-8 decreased from 32.6 million in 1969, its peak year, to a low of 26.9 million in 1984. Enrollment climbed to 27.4 million in 1986 (figure 2). Paralleling the increase in the 5- to 13-year-old population, public enrollment in grades K-8 will increase to 31.9 million by 1997 and then decline to 31.6 million by the year 2000.

Public Enrollment in Grades 9 through 12

Public enrollment in grades 9-12 peaked at 14.3 million in 1976 (table 1). Enrollment then declined to 12.4 million in 1986, as smaller cohorts (groups of children born during the same year) of the late 1960's and early 1970's entered secondary schools. Paralleling the decline in the 14- to 17-year-old population, public enrollment in grades 9-12 is projected to continue to decrease to 11.3 million by 1990 and then to begin to increase, reaching 13.7 million by the year 2000.

Figure 2.--Public school enrollment, by grade level compared with school-age populations: 1965 to 2000



Alternative Projections

Enrollment projections shown in this bulletin (table 1) are based on the Bureau of the Census' middle series population projections (series 14). Enrollment projections based on other Census Bureau series population projections were also considered. Using series 17, projections of enrollment in public schools would increase from 39.7 million in 1986 to 46.2 million (rather than 45.3 million) by the year 2000, surpassing the record level of 46.1 million in 1971. This series assumes a fertility rate of 1.9 and a net immigration of 750,000 (see technical notes).

Technical Notes

Methodology —

Enrollments in regular public elementary and secondary schools from the Center for Education Statistics' Common Core of Data Survey were used to develop projections shown in this bulletin (this survey does not provide data on private schools). The projections of these enrollments are demographically based. Bureau of the Census' middle series population projections were chosen for use. The future fertility rate assumption, which determines projections of the number of births, is the key assumption in making population projections. The middle series (series 14) projections assume an ultimate completed cohort fertility rate of 1.9 births per woman by the year 2050 and a net annual immigration of 450,000.

Projections of enrollment in public elementary and secondary grades are based on a grade retention method. This method starts with 6-year-olds entering 1st grade and then follows their subsequent progress through public elementary and secondary schools. This method assumes that past trends in factors affecting enrollments will continue over the projection period. The method implicitly includes the net effects of such variables as immigration, dropouts, transfers to and from private schools, and deaths.

Grades 2 through 12 are projected on the basis of grade retention rates. Using various populations by age as the base, public enrollments by age are based on enrollment rate projections for kindergarten, 1st grade, elementary ungraded and special, secondary ungraded and special, and postgraduate enrollment. For these projections, public grade retention rates and public enrollment rates by age are projected to remain constant at levels consistent with recent rates.

For public schools, the retention rates for grades 2-10 are close to 100 percent. The retention rates for grades 11 and 12 are 90 percent. The enrollment rates for kindergarten and 1st grade are 90 and 95 percent respectively, while those for elementary ungraded and special, secondary ungraded and special, and postgraduate are 2.0, 2.5, and 0.3 percent respectively. For more than a decade, these rates have remained stable.

Data Limitations —

Projections are subject to errors from many sources. By their nature, projections cannot take into consideration conditions that are impossible to anticipate at the time the projections are made. Users should evaluate the assumptions to determine the appropriateness of these projections for their purposes.

Projection Accuracy —

The grade retention method has been used by CES since 1966 to project enrollment in public elementary and secondary schools. Based on this method, the mean absolute percent error between reported enrollments and CES projections of enrollments in public elementary and secondary schools for 1 year ahead has been 0.2 percent (table 2). The percentage for 2 years ahead is 0.4 percent and 5 years ahead is 0.8 percent. The percentage for 10 years ahead has been 7.2 percent.

For more information about the topics in this bulletin, contact:

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Table 1.—Public school enrollment in grades K-8 and 9-12 of regular day schools, with projections: 50 States and D.C., 1965 to 2000
(In thousands)

Year (fall)	K-12[1]	K-8[1]	9-12
1965.....	42,173	30,563	11,610
1966.....	43,039	31,145	11,894
1967.....	43,891	31,641	12,250
1968.....	44,944	32,226	12,718
1969.....	45,619	32,597	13,022
1970.....	45,909	32,577	13,332
1971.....	46,081	32,265	13,816
1972.....	45,744	31,831	13,913
1973.....	45,429	31,353	14,077
1974.....	45,053	30,921	14,132
1975.....	44,791	30,487	14,304
1976.....	44,317	30,006	14,311
1977.....	43,577	29,336	14,240
1978.....	42,550	28,328	14,223
1979.....	41,645	27,931	13,714
1980.....	40,987	27,674	13,313
1981.....	40,099	27,245	12,855
1982.....	39,652	27,156	12,496
1983.....	39,352	26,997	12,355
1984.....	39,293	26,918	12,375
1985.....	39,513	27,047	12,467
1986[2].....	39,712	27,355	12,357
		Projected[2]	
1987.....	39,916	27,828	12,088
1988.....	40,116	28,387	11,729
1989.....	40,379	28,985	11,394
1990.....	40,898	29,628	11,270
1991.....	41,548	30,175	11,373
1992.....	42,259	30,717	11,542
1993.....	42,967	31,139	11,828
1994.....	43,672	31,408	12,264
1995.....	44,238	31,635	12,603
1996.....	44,729	31,789	12,940
1997.....	45,060	31,867	13,193
1998.....	45,212	31,855	13,357
1999.....	45,284	31,760	13,524
2000.....	45,271	31,594	13,677

[1]Includes most kindergarten and some nursery school enrollment.
[2]These projections were prepared December 1986.

NOTE.—Details may not add to totals because of rounding.

SOURCE: U.S. Department of Education, Center for Education Statistics, Statistics of Public Elementary and Secondary Schools, various years.

Table 2.—Summary of mean absolute percent errors of projections of public school enrollments, by lead time

Level of enrollment	Lead time (years)			
	1	2	5	10
K-12	0.2	0.4	0.8	7.2
K-8	0.3	0.6	0.9	8.8
9-12	0.6	0.8	2.0	5.3

NOTE.—The mean absolute percent errors (MAPE) presented are for past enrollment projections. Although the accuracy of past projections does not assure that the projections in this bulletin will show similar accuracy, an analysis of projection errors might be helpful in determining how much weight to give to the projections in making decisions.

SOURCE: U. S. Department of Education, Center for Education Statistics, Projections of Education Statistics to 1992-93, July 1985.